

CLAIMS

1. An oxygen-absorbing composition consisting essentially of iron and a tartrate.
2. An oxygen-absorbing composition as set forth in claim 1 wherein said iron is present by weight in an amount of between about 55% and 98%, and wherein said tartrate is present by weight in an amount of between about 3% and 50%.
3. An oxygen-absorbing composition as set forth in claim 1 wherein said iron is present by weight in an amount of between about 70% and 95%, and wherein said tartrate is present by weight in an amount of between about 5% and 35%.
4. An oxygen-absorbing composition as set forth in claim 1 wherein said iron is present by weight in an amount of between about 80% and 90%, and wherein said tartrate is present by weight in an amount of between about 10% and 20%.
5. An oxygen-absorbing composition as set forth in claim 1 wherein said tartrate is selected from the group consisting of potassium acid tartrate, sodium acid tartrate, potassium sodium tartrate tetrahydrate, and sodium tartrate dihydrate.
6. An oxygen-absorbing composition as set forth in claim 1 wherein said tartrate is selected from the group consisting of dipotassium tartrate; ammonium tartrate, dibasic; calcium tartrate dihydrate; diethyl tartrate; and diisopropyl tartrate.

7. An oxygen-absorbing composition as set forth in claim 1 including a water-absorbing agent.

8. An oxygen-absorbing composition as set forth in claim 7 wherein said iron is present by weight in an amount of between about 55% and 98%, and wherein said tartrate is present by weight in an amount of between about 3% and 50%, and wherein said water-absorbing agent is present in an amount of between about 1% and 50%.

9. An oxygen-absorbing composition as set forth in claim 7 wherein said iron is present by weight in an amount of between about 70% and 95%, and wherein said tartrate is present by weight in an amount of between about 5% and 35%, and wherein said water-absorbing agent is present in an amount of between about 3% and 30%.

10. An oxygen-absorbing composition as set forth in claim 7 wherein said iron is present by weight in an amount of between about 80% and 90%, and wherein said tartrate is present by weight in an amount of between about 10% and 20%, and wherein said water-absorbing agent is present in an amount of between about 5% and 15%.

11. A method of absorbing oxygen from a closed environment comprising the steps of providing an oxygen-absorbing composition consisting essentially of iron and a tartrate, and injecting water into said composition.

12. A method of absorbing oxygen as set forth in claim 11 wherein said iron is present by weight in an amount of between about 55% and 98%, and wherein said tartrate is present by weight in an amount of between about 3% and 50%.

13. A method of absorbing oxygen as set forth in claim 11 wherein said iron is present by weight in an amount of between about 70% and 95%, and wherein said tartrate is present by weight in an amount of between about 5% and 35%.

14. A method of absorbing oxygen as set forth in claim 11 wherein said iron is present by weight in an amount of between about 80% and 90%, and wherein said tartrate is present by weight in an amount of between about 10% and 20%.

15. A method of absorbing oxygen as set forth in claim 11 wherein said tartrate is selected from the group consisting of potassium acid tartrate, sodium acid tartrate, potassium sodium tartrate tetrahydrate, and sodium tartrate dihydrate.

16. A method of absorbing oxygen as set forth in claim 11 wherein said tartrate is selected from the group consisting of dipotassium tartrate; ammonium tartrate, dibasic; calcium tartrate dihydrate; diethyl tartrate; and diisopropyl tartrate.

17. A method of absorbing oxygen as set forth in claim 11 wherein said composition includes a water-absorbing agent.

18. A method of absorbing oxygen as set forth in claim 17 wherein said iron is present by weight in an amount of between about 55% and 98%, and wherein said tartrate is present by weight in an amount of between about 3% and 50% and wherein said water-adsorbing agent is present by weight in an amount of between about 1% and 50%.

19. A method of absorbing oxygen as set forth in claim 17 wherein said iron is present by weight in an amount of between about 70% and 95%, and wherein said tartrate is present by weight in an amount of between about 5% and 35% and wherein said water-adsorbing agent is present by weight in an amount of between about 3% and 30%.

20. A method of absorbing oxygen as set forth in claim 17 wherein said iron is present by weight in an amount of between about 80% and 90%, and wherein said tartrate is present by weight in an amount of between about 10% and 20% and wherein said water-adsorbing agent is present by weight in an amount of between about 5% and 15%.

21. A method of absorbing oxygen as set forth in claim 17 wherein said tartrate is selected from the group consisting of potassium acid tartrate, sodium acid tartrate, potassium sodium tartrate tetrahydrate, and sodium tartrate dihydrate.

22. A method of absorbing oxygen as set forth in claim 17 wherein said tartrate is selected from the group consisting of dipotassium tartrate; ammonium tartrate, dibasic; calcium tartrate dihydrate; diethyl tartrate; and diisopropyl tartrate.

23. An oxygen-absorbing composition comprising iron and a tartrate.

24. An oxygen-absorbing composition as set forth in claim 23 wherein said iron is present by weight in an amount of between about 55% and 98%, and wherein said tartrate is present by weight in an amount of between about 3% and 50%.

25. An oxygen-absorbing composition as set forth in claim 23 wherein said iron is present by weight in an amount of between about 70% and 95%, and wherein said tartrate is present by weight in an amount of between about 5% and 35%.

26. An oxygen-absorbing composition as set forth in claim 23 wherein said iron is present by weight in an amount of between about 80% and 90%, and wherein said tartrate is present by weight in an amount of between about 10% and 20%.

27. An oxygen-absorbing composition as set forth in claim 23 wherein said tartrate is selected from the group consisting of potassium acid tartrate, sodium acid tartrate, potassium sodium tartrate tetrahydrate, and sodium tartrate dihydrate.

28. An oxygen-absorbing composition as set forth in claim 23 wherein said tartrate is selected from the group consisting of dipotassium tartrate; ammonium tartrate, dibasic; calcium tartrate dihydrate; diethyl tartrate; and diisopropyl tartrate.

29. An oxygen-absorbing composition as set forth in claim 23 including a water-absorbing agent.

30. An oxygen-absorbing composition as set forth in claim 29 wherein said iron is present by weight in an amount of between about 55% and 98%, and wherein said tartrate is present by weight in an amount of between about 3% and 50%, and wherein said water-absorbing agent is present in an amount of between about 1% and 50%.

31. An oxygen-absorbing composition as set forth in claim 29 wherein said iron is present by weight in an amount of between about 70% and 95%, and wherein said tartrate is present by weight in an amount of between about 5% and 35%, and wherein said water-absorbing agent is present in an amount of between about 3% and 30%.

32. An oxygen-absorbing composition as set forth in claim 29 wherein said iron is present by weight in an amount of between about 80% and 90%, and wherein said tartrate is present by weight in an amount of between about 10% and 20%, and wherein said water-absorbing agent is present in an amount of between about 5% and 15%.

33. An oxygen-absorbing composition as set forth in claim 29 wherein said tartrate is selected from the group consisting of potassium acid tartrate, sodium acid tartrate, potassium sodium tartrate tetrahydrate, and sodium tartrate dihydrate.

34. An oxygen-absorbing composition as set forth in claim 29 wherein said tartrate is selected from the group consisting of dipotassium tartrate; ammonium tartrate, dibasic; calcium tartrate dihydrate; diethyl tartrate; and diisopropyl tartrate.

35. A method of absorbing oxygen from a closed environment comprising the steps of providing an oxygen-absorbing composition comprising iron and a tartrate, and injecting water into said composition.

36. A method of absorbing oxygen as set forth in claim 35 wherein said oxygen-absorbing composition includes an electrolyte.

37. A method of absorbing oxygen as set forth in claim 36 wherein said oxygen-absorbing composition includes a water-absorbing agent.

38. A method of absorbing oxygen as set forth in claim 35 wherein said tartrate is selected from the group consisting of potassium acid tartrate, sodium acid tartrate, potassium sodium tartrate tetrahydrate, and sodium tartrate dihydrate.

39. A method of absorbing oxygen as set forth in claim 35 wherein said tartrate is selected from the group consisting of dipotassium tartrate; ammonium tartrate, dibasic; calcium tartrate dihydrate; diethyl tartrate; and diisopropyl tartrate.

40. An oxygen-absorbing composition consisting essentially of iron, a tartrate, and an electrolyte.

41. An oxygen-absorbing composition as set forth in claim 40 wherein said iron is present by weight in an amount of between about 55% and 98%, and wherein said tartrate is present by weight in an amount of between about 3% and 50%.

42. An oxygen-absorbing composition as set forth in claim 40 wherein said iron is present by weight in an amount of between about 70% and 95%, and wherein said tartrate is present by weight in an amount of between about 5% and 35%.

43. An oxygen-absorbing composition as set forth in claim 40 wherein said iron is present by weight in an amount of between about 80% and 90%, and wherein said tartrate is present by weight in an amount of between about 10% and 20%.

44. An oxygen-absorbing composition as set forth in claim 40 wherein said tartrate is selected from the group consisting of potassium acid tartrate, sodium acid tartrate, potassium sodium tartrate tetrahydrate, and sodium tartrate dihydrate.

45. An oxygen-absorbing composition as set forth in claim 40 wherein said tartrate is selected from the group consisting of dipotassium tartrate; ammonium tartrate, dibasic; calcium tartrate dihydrate; diethyl tartrate; and diisopropyl tartrate.

46. An oxygen-absorbing composition as set forth in claim 40 including a water-absorbing agent.

47. An oxygen-absorbing composition as set forth in claim 46 wherein said iron is present by weight in an amount of between about 55% and 98%, and wherein said tartrate is present by weight in an amount of between about 3% and 50%, and wherein said water-absorbing agent is present in an amount of between about 1% and 50%.

48. An oxygen-absorbing composition as set forth in claim 46 wherein said iron is present by weight in an amount of between about 70% and 95%, and wherein said tartrate is present by weight in an amount of between about 5% and 35%, and wherein said water-absorbing agent is present in an amount of between about 3% and 30%.

49. An oxygen-absorbing composition as set forth in claim 46 wherein said iron is present by weight in an amount of between about 80% and 90%, and wherein said tartrate is present by weight in an amount of between about 10% and 20%, and wherein said water-absorbing agent is present in an amount of between about 5% and 15%.

50. An oxygen-absorbing composition as set forth in claim 46 wherein said tartrate is selected from the group consisting of potassium acid tartrate, sodium acid tartrate, potassium sodium tartrate tetrahydrate, and sodium tartrate dihydrate.

51. An oxygen-absorbing composition as set forth in claim 46 wherein said tartrate is selected from the group consisting of dipotassium tartrate; ammonium tartrate, dibasic; calcium tartrate dihydrate; diethyl tartrate; and diisopropyl tartrate.

52. A method of absorbing oxygen from a closed environment comprising the steps of providing an oxygen-absorbing composition consisting essentially of iron, a tartrate, and an electrolyte, and injecting water into said composition.

53. A method of absorbing oxygen as set forth in claim 52 wherein said iron is present by weight in an amount of between about 55% and 98%, and wherein said tartrate is present by weight in an amount of between about 3% and 50%.

54. A method of absorbing oxygen as set forth in claim 52 wherein said iron is present by weight in an amount of between about 70% and 95%, and wherein said tartrate is present by weight in an amount of between about 5% and 35%.

55. A method of absorbing oxygen as set forth in claim 52 wherein said iron is present by weight in an amount of between about 80% and 90%, and wherein said tartrate is present by weight in an amount of between about 10% and 20%.

56. A method of absorbing oxygen as set forth in claim 52 wherein said tartrate is selected from the group consisting of potassium acid tartrate, sodium acid tartrate, potassium sodium tartrate tetrahydrate, and sodium tartrate dihydrate.

57. A method of absorbing oxygen as set forth in claim 52 wherein said tartrate is selected from the group consisting of dipotassium tartrate; ammonium tartrate, dibasic; calcium tartrate dihydrate; diethyl tartrate; and diisopropyl tartrate.

58. A method of absorbing oxygen as set forth in claim 52 wherein said composition includes a water-absorbing agent.

59. A method of absorbing oxygen as set forth in claim 58 wherein said iron is present by weight in an amount of between about 55% and 98%, and wherein said tartrate is present by weight in an amount of between about 3% and 50% and wherein said water-adsorbing agent is present by weight in an amount of between about 1% and 50%.

60. A method of absorbing oxygen as set forth in claim 58 wherein said iron is present by weight in an amount of between about 70% and 95%, and wherein said tartrate is present by weight in an amount of between about 5% and 35% and wherein said water-adsorbing agent is present by weight in an amount of between about 3% and 30%.

61. A method of absorbing oxygen as set forth in claim 58 wherein said iron is present by weight in an amount of between about 80% and 90%, and wherein said tartrate is present by weight in an amount of between about 10% and 20% and wherein said water-adsorbing agent is present by weight in an amount of between about 5% and 15%.

62. A method of absorbing oxygen as set forth in claim 58 wherein said tartrate is selected from the group consisting of potassium acid tartrate, sodium acid tartrate, potassium sodium tartrate tetrahydrate, and sodium tartrate dihydrate.

63. A method of absorbing oxygen as set forth in claim 58 wherein said tartrate is selected from the group consisting of dipotassium tartrate; ammonium tartrate, dibasic; calcium tartrate dihydrate; diethyl tartrate; and diisopropyl tartrate.

64. An oxygen-absorbing composition comprising iron, a tartrate, and an electrolyte.

65. An oxygen-absorbing composition as set forth in claim 64 wherein said iron is present by weight in an amount of between about 55% and 98%, and wherein said tartrate is present by weight in an amount of between about 3% and 50%.

66. An oxygen-absorbing composition as set forth in claim 64 wherein said iron is present by weight in an amount of between about 70% and 95%, and wherein said tartrate is present by weight in an amount of between about 5% and 35%.

67. An oxygen-absorbing composition as set forth in claim 64 wherein said iron is present by weight in an amount of between about 80% and 90%, and wherein said tartrate is present by weight in an amount of between about 10% and 20%.

68. An oxygen-absorbing composition as set forth in claim 64 wherein said tartrate is selected from the group consisting of potassium acid tartrate, sodium acid tartrate, potassium sodium tartrate tetrahydrate, and sodium tartrate dihydrate.

69. An oxygen-absorbing composition as set forth in claim 64 wherein said tartrate is selected from the group consisting of dipotassium tartrate; ammonium tartrate, dibasic; calcium tartrate dihydrate; diethyl tartrate; and diisopropyl tartrate.

70. An oxygen-absorbing composition as set forth in claim 64 including a water-absorbing agent.

71. An oxygen-absorbing composition as set forth in claim 70 wherein said iron is present by weight in an amount of between about 55% and 98%, and wherein said tartrate is present by weight in an amount of between about 3% and 50%, and wherein said water-absorbing agent is present in an amount of between about 1% and 50%.

72. An oxygen-absorbing composition as set forth in claim 70 wherein said iron is present by weight in an amount of between about 70% and 95%, and wherein said tartrate is present by weight in an amount of between about 5% and 35%, and wherein said water-absorbing agent is present in an amount of between about 3% and 30%.

73. An oxygen-absorbing composition as set forth in claim 70 wherein said iron is present by weight in an amount of between about 80% and 90%, and wherein said tartrate is present by weight in an amount of between about 10% and 20%, and wherein said water-absorbing agent is present in an amount of between about 5% and 15%.

74. A method of absorbing oxygen from a closed environment comprising the steps of providing an oxygen-absorbing composition comprising iron, a tartrate, an electrolyte, and injecting water into said composition.

75. A method of absorbing oxygen as set forth in claim 74 wherein said tartrate is selected from the group consisting of potassium acid tartrate, sodium acid tartrate, potassium sodium tartrate tetrahydrate, and sodium tartrate dihydrate.

76. A method of absorbing oxygen as set forth in claim 74 wherein said tartrate is selected from the group consisting of dipotassium tartrate; ammonium tartrate, dibasic; calcium tartrate dihydrate; diethyl tartrate; and diisopropyl tartrate.

77. A method of absorbing oxygen as set forth in claim 74 wherein said oxygen-absorbing composition includes a water-absorbing agent.

78. A method of absorbing oxygen as set forth in claim 77 wherein said tartrate is selected from the group consisting of potassium acid tartrate, sodium acid tartrate, potassium sodium tartrate tetrahydrate, and sodium tartrate dihydrate.

79. A method of absorbing oxygen as set forth in claim 77 wherein said tartrate is selected from the group consisting of dipotassium tartrate; ammonium tartrate, dibasic; calcium tartrate dihydrate; diethyl tartrate; and diisopropyl tartrate.